



Minnesota Pollution Control Agency

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FILE COPY

February 20, 2013

Ms. Chrissy Bartovich
Director - Environmental
U.S. Steel Corporation
Minnesota Ore Operations
P.O. Box 417
Mountain Iron, Minnesota 55768

RE: Amendment Number 1
June 9, 2011, Schedule of Compliance

Dear Ms. Bartovich:

On February 12, 2013, the Minnesota Pollution Control Agency (MPCA) staff received copies of Amendment Number 1 of the June 9, 2011, Schedule of Compliance (Amendment), signed by Michael S. Williams of the US Steel Corporation (Regulated Party). On February 12, 2013, the Amendment was signed by Ann Foss (MPCA). Therefore the effective date of the Amendment is February 12, 2013. Your original, signed copy of the executed Amendment is enclosed with this letter.

As indicated in the Amendment, Part 7.rrr requires submittal of a Groundwater Sulfate Reduction Plan to MPCA within 150 days of the effective date of the Amendment. Based on the effective date of February 12, 2013, the Plan is due by July 12, 2013.

As indicated in the Amendment, all communications between the Regulated Party and the MPCA concerning the terms and conditions of the Amendment shall be directed to the MPCA Case Contact, John Thomas, at 218-302-6616.

Thank you for your cooperation in this matter.

JT:slm

Enclosure

cc: John Thomas, MPCA
Katie Koelfgen, MPCA
MPCA Enforcement Data Coordinator – Enforcement Database Tracking #16452 (w/enclosure)

**STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY**

**IN THE MATTER OF: United States Steel
Corporation**

**SCHEDULE OF COMPLIANCE
AMENDMENT NUMBER 1
Multi-Media Pollutant Reduction**

I. RECITALS

A. PARTIES. This Schedule of Compliance Amendment Number 1 ("Amendment No. 1") applies to and is binding upon the following parties:

1. United States Steel Corporation ("Regulated Party");
2. The Minnesota Pollution Control Agency ("MPCA").

Unless specified otherwise in this Amendment No. 1, where this Amendment No. 1 identifies actions to be taken by the MPCA, the Commissioner or the Commissioner's designees shall act on the MPCA's behalf.

B. SCHEDULE OF COMPLIANCE. The MPCA and Regulated Party entered into a Schedule of Compliance ("Agreement") regarding the Regulated Party's facility ("Facility") located in Mountain Iron, Minnesota. The effective date of the Agreement was June 9, 2011.

C. AGREEMENT AMENDMENTS. Pursuant to Part 25. of the Agreement, the Agreement may be amended at any time by written agreement of the parties. This Amendment No. 1 constitutes the parties' written agreement to amend the Agreement.

D. STATEMENT OF THE FACTS. The following constitutes a summary of the facts upon which this Amendment No. 1 is based:

1. In compliance with the Agreement, the Regulated Party submitted to the MPCA for review and approval a Dry Controls Effectiveness Report (Report), dated January 5, 2012. The Report included a schedule for air quality emission controls as well as other measures to reduce the concentration of sulfate within the Facility's tailings basin. The Report indicated that implementation of sulfate reduction measures would result in a gradual decrease in sulfate concentration, from an initial concentration (January 1, 2012) of 950 mg/l, to a final concentration (estimated late 2031) of 476 mg/l.

2. In compliance with the Agreement, in April, 2012 the Regulated Party installed a nest of monitoring wells (MW12) at the Facility's eastern property boundary. One of the purposes for installing MW12 was to determine whether or not the sulfate concentration in the groundwater at

the property boundary was in compliance with the groundwater sulfate standard. At the time of execution of the Agreement, there were not monitoring wells located at the property boundary.

3. MW12 was also installed to collect pumping test and sulfate concentration data that would be used to develop a groundwater sulfate transport model. The purpose of the groundwater sulfate transport model is to determine the maximum concentration of sulfate that can be maintained within the tailings basin to ensure compliance with the sulfate groundwater standard at the current property boundary.

4. The Regulated Party completed monitoring at MW12 in April and May, 2012. Results of these monitoring events indicate violations of the sulfate groundwater standard at the Facility's property boundary.

5. Pursuant to Part 7.000. of the Agreement, the MPCA is taking action in accordance with Part 23 of the Agreement to address these violations of sulfate groundwater standards at MW12. The goal of Amendment No. 1 is to re-establish compliance with the sulfate groundwater standard at the Facility's property boundary as soon as possible.

II. AGREEMENT AMENDMENT

NOW, THEREFORE, pursuant to Part 25 of the Agreement, the MPCA and Regulated Party hereby agree and stipulate that the Agreement is amended as follows:

A. Part 6. **ALLEGED VIOLATIONS** is amended to incorporate the following violations:

c. **Mn. R. 7060.0400 Uses of Underground Waters**, states:

The waters of the state are classified according to their highest priority use, which for underground waters of suitable natural quality is their use now or in the future as a source of drinking, culinary, or food processing water. Suitability is to be construed as meaning that the waters in their natural state can be used for such purposes after such purification or treatment processes as may be prescribed by the Minnesota Department of Health or the Minnesota Department of Agriculture. This classification is established to protect the underground waters as potable water supplies by preventing and abating pollution. In making this classification, the agency recognizes that the underground waters of the state are contained in a series of related and often interconnected aquifers, such that if sewage, industrial waste, other waste, or other pollutants enter the underground water system, they may spread both vertically and horizontally. Thus, all underground waters are best classified for use as potable water supply in order to preserve high quality waters by minimizing spreading of pollutants, by prohibiting further discharges of wastes thereto, and to maximize the possibility of rehabilitating degraded waters for their priority use.

Minn. R. 7050.0221 Specific Water Quality Standards for Class 1 Waters of the State; Domestic Consumption. Subpart. 1. B. states, in-part:

The Class 1 standards in this part are the United States Environmental Protection Agency primary (maximum contaminant levels) and secondary drinking water standards, as contained in Code of Federal Regulations, title 40, parts 141 and 143, as amended through July 1, 2006.

Code of Federal Regulations, title 40 part § 143.3 Secondary maximum contaminant levels, states, in-part:

The secondary maximum contaminant levels for public water systems are as follows: ...Sulfate 250 mg/l

The following results have been obtained from the new monitoring well (MW12 consisting of a nest of three monitoring wells of different depths) located near to the Regulated Party's property boundary.

Location	Date	Sulfate Concentration (mg/l)
MW12 shallow	4/10/12	577
	5/7/12	562
MW12 intermediate	4/10/12	564
	5/7/12	545
	5/7/12	537 (duplicate)
MW12 deep	4/10/12	466
	4/10/12	461 (duplicate)
	5/7/12	460
	5/15/12	476

These concentrations exceed the groundwater total sulfate standard of 250 mg/l.

B. Part 7. REQUIREMENTS is amended to add the following:

rrr. Within 150 days of the effective date of this Amendment No. 1, the Regulated Party shall submit to the MPCA, for review and approval, a Groundwater Sulfate Reduction Plan (Plan) that includes a schedule for evaluating one or more of the following: (1) additional methods of reducing sulfate concentrations within the Facility's tailings basin beyond those described in the Regulated Party's Dry Control Effectiveness Report, dated January 5, 2012, and/or (2) installing measures to reduce sulfate concentrations in groundwater before it migrates beyond the Facility's current property boundary. The Plan must describe measures that will be investigated and provide a schedule for the path forward related to the proposed measures. If treatment technologies are proposed for removal of sulfate from process wastewater and/or tailings basin water and/or groundwater, the Plan must include a schedule for bench and/or pilot scale testing of the

proposed technologies. Finally, the Plan must provide an estimate of when compliance with the sulfate groundwater standard at the current property boundary will be achieved.

C. **EFFECTIVE DATE.** This Amendment No. 1 to the Agreement shall be effective on the date it is signed by the MPCA.

D. **UNAMENDED PROVISIONS.** All provisions of the Schedule of Compliance Multi-Media Pollutant Reduction, dated June 9, 2011, not amended in this Schedule of Compliance Multi-Media Pollutant Reduction Amendment No. 1 shall remain in full force and effect.

E. **TERMINATION.** Each requirement of this Amendment shall terminate, in whole or in part, as provided in Part 27 of the June 9, 2011 Agreement.

BY THEIR SIGNATURES BELOW, THE UNDERSIGNED REPRESENT THAT THEY HAVE AUTHORITY TO AMEND THE ORIGINAL AGREEMENT AND THAT THEY AGREE WITH THIS AMENDMENT AS WRITTEN

**UNITED STATES STEEL
CORPORATION**

By: MS Williams
Michael S. Williams
Sr. VP – North American Flat Rolled Ops.

**STATE OF MINNESOTA
POLLUTION CONTROL AGENCY**

By: Ann Foss
Ann Foss, Director
Metallic Mining Sector
Industrial Division

Date: February 11, 2013

Date: 2-12-13

